Appendix B

Regional Profiles:
Pipeline Capacity and
Service

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Regional Profiles: Pipeline Capacity and Service

The U.S. interstate natural gas pipeline system has grown substantially since World War II, maturing from a dedicated field-to-market structure into a national network. Of the lower 48 States, 27 are totally dependent upon the interstate natural gas transmission network for their natural gas supplies, which must be transported from only 11 States, located primarily in the Southwest and Central regions of the country. The requirement for natural gas pipeline service varies throughout the country. Each region possesses its own natural gas service profile based on factors involving weather, historical access to gas supplies, and population characteristics.

This appendix presents a brief profile of each of the geographic regions used in Chapter 3 of this report. The emphasis is upon the capabilities, that is, the capacity of each, of the interstate natural gas pipelines entering or exiting each region. It also provides some regional highlights concerning the growth in capacity of the interstate pipeline systems into or from each region and also at the level of planned additions to capacity over the next several years. Data on capacity, pipeline flows, pipeline utilization, and production and consumption are for the years 1990 and 1994. Data on proposed additions to capacity cover the period 1995 through 1998.

Producing Regions

Southwest Region

The Southwest Region is unique not only because of its long-held position as the major natural gas producing and consuming region, but also because it supplies the bulk of the gas consumed by all the other regions. It supplies a vast network of pipelines consisting of major interstate trunklines that deliver gas to each of the other regions of the country, smaller interstate lines that primarily serve the regional market, and intrastate pipelines that deliver gas exclusively within the States of the Southwest. More interstate natural gas pipeline companies operate within the Southwest Region than in any other, but it is the primary market for only a few of them.

Twenty of the major interstate pipelines originate in the Southwest (Figure B1). They extend to the Southeast Region through Louisiana and Arkansas, to the Central Region through Oklahoma and Arkansas, and to the Western Region through New Mexico. The Southwest Region currently exports about 60 percent (8.7 trillion cubic feet in 1994) of its production, which is 61 percent of the total natural gas consumed in the entire country. 95 Pipelines exiting the region have the capacity to accommodate as much as 35.7 billion cubic feet per day: 60 percent to the Southeast Region, 24 percent to the Central Region, 15 percent to the Western Region, and the rest to Mexico (Table B1). Much of the pipeline capacity to the Southeast traverses the region, delivering supply to the Midwest and Northeast; to a lesser degree this is also true for the pipeline capacity exiting to the Central Region, much of which is ultimately destined for the Midwest Region.

Between 1990 and 1994, regional export capacity increased by only 8 percent, but in incremental daily flow capacity that came to 2.7 billion cubic feet per day. While capacity additions into the Southeast Region represented only a 5-percent change from 1990, there was a 1.0 billion cubic foot per day increase in volume. While the volumetric increase was not comparable to the increase in capacity from Canada to the Northeast and Western regions, it still represented a substantial increase in capability to supply the Southeast Region. Export capacity to the Central Region showed a decrease during the period, but this was mainly due to a reversal of flows as more supplies began to emerge from the coalbed methane and tight gas fields of southern and central Colorado.

In recent years, partly because of improved recovery techniques and tax credit incentives, substantial development of coalbed methane resources has occurred in northern New Mexico and in the adjacent Central Region in southern Colorado. This has brought on additions to capacity along the interstate pipeline systems serving the San Juan Basin and nearby production areas.

⁹⁵For purposes of this appendix, exports pertain to all volumes leaving a region for another region or country.

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Table B1. Interregional Pipeline Capacity, Average Daily Flows, and Usage Rates, 1990 and 1994

Receiving Region	Sending Region	Capacity (MMcf per day)			Average Flow (MMcf per day)			Usage Rate (percent)		
		1994	1990	Percent Change	1994	1990	Percent Change	1994	1990	Change
Canada	Central	66	66	0	9	44	-80	14	67	-53
	Midwest	2,093	1,211	73	1,443	961	50	69	79	-10
Total into Region		2,159	1,277	69	1,452	1,005	44	67	79	-12
Mexico	Southwest	844	354	138	117	38	208	14	11	3
	Western	45	45	0	7	5	40	16	11	5
Total into Region		889	399	123	124	43	188	14	11	3
Central	Canada	1,544	1,254	23	1,469	941	56	95	75	20
	Midwest	2,333	1,765	32	1,489	974	53	^a 90	^a 75	15
	Southwest	8,483	8,716	-3	4,722	4,119	15	56	^a 49	9
	Western	298	250	19	0	196	-100	0	78	NA
Total into Region		12,658	11,985	6	7,680	6,230	23	^a 67	^a 56	11
Midwest	Canada	2,780	2,161	29	2,487	1,733	44	89	^a 84	5
	Central	9,722	8,988	8	6,986	5,684	23	72	63	9
	Northeast	2,037	2,024	1	887	714	24	^a 56	^a 45	11
	Southeast	9,815	9,645	2	6,712	6,134	9	68	64	4
Total into Region		24,354	22,818	7	17,072	14,265	20	^a 71	^a 64	7
Northeast	Canada	2,135	467	357	1,656	309	436	78	66	12
	Midwest	4,803	4,572	5	3,185	3,464	-8	66	76	-10
	Southeast	4,783	4,782	0	3,705	4,086	-9	77	85	-8
Total into Region		11,721	9,821	19	8,546	7,859	9	73	80	-7
Southeast	Northeast	535	113	373	86	69	25	^a 75	^a 69	6
	Southwest	21,051	20,006	5	14,374	14,703	-2	68	73	-5
Total into Region		21,586	20,119	7	14,460	14,772	-2	^a 68	73	-5
Southwest	Central	1,745	1,283	36	1,122	572	96	^a 79	^a 58	21
	Mexico	350	350	0	19	0	NA	5	0	NA
	Southeast	335	335	0	15	15	0	^a 60	^a 60	0
Total into Region		2,430	1,968	23	1,156	587	97	^a 64	^a 69	-5
Western	Canada	3,546	2,406	47	2,866	1,871	53	81	78	3
	Central	1,164	365	219	917	196	368	79	54	25
	Southwest	5,351	4,340	23	3,383	3,910	-13	63	90	-27
Total into Region		10,061	7,111	41	7,166	5,977	20	71	84	-13
Total Lower 48 Sta	ites	85,858	75,498	14	57,656	50,738	14	^a 69	^a 70	-1

^aUsage Rate shown may not equal the average daily flows divided by capacity because in some cases no throughput volumes were reported for known border crossings. This capacity was not included in the computation of usage rate.

Sources: Energy Information Administration (EIA). **Pipeline Capacity:** EIAGIS-NG Geographic Information System, Natural Gas Pipeline State Border Capacity Database as of August 1995. **Average Flow:** "Natural Gas Annual 1994," draft report. **Usage Rate:** Office of Oil and Gas, derived from Pipeline Capacity and Average Flow.

MMcf = Million cubic feet. NA = Not applicable.

Even though large volumes of natural gas leave the Southwest Region for other regional markets, significant volumes remain in the region to fulfill the high level of industrial demand encouraged over the years by proximity to production. In many respects, the States in the Southwest Region represent complete markets for natural gas, independent of other regions, and much of the movement of gas is completed by means of intrastate rather than interstate pipeline systems. The region has large petrochemical and electric utility industries drawn there by the local availability of substantial natural gas supplies.

In addition, the region has numerous underground storage reservoirs, most of which are used to store excess natural gas production during months of low consumption (Figure B1). Total storage capacity (over 1.6 trillion cubic feet) is the second highest of the regions. The region has temperate winters and long, hot summers. Louisiana and Texas are the second and third warmest States in the lower 48 States, which accounts for large electricity load levels for air-conditioning services.

Several of the major pipeline projects planned for development between 1991 and 1994, which were, in large part, to provide greater access to supplies from the Arkoma Basin in Arkansas/Oklahoma to the Northeast and Midwest markets, were not built. Part of the reason may have been planned Canadian import expansions and the already low utilization rates on the existing lines extending to the Midwest Region. In contrast, almost all of the 1991 through 1994 planned expansions into the Western Region were implemented. Capacity from the Southwest to the Western Region increased by 22 percent, to 5.3 billion cubic feet per day, but about 57 percent of the increase represented Central Region supplies traversing the region on their way to the California market.

Expansion projects currently planned for the Southwest Region, totaling 2.2 billion cubic feet per day through 1997 (see Figure 7, Chapter 3), reflect a pattern similar to other regions, that is, an emphasis on localized pipeline improvements and intraregional capabilities. More than 64 percent of the planned capacity additions are within the region. Several, however, do complement the interstate system in that they improve hub and/or underground storage accessibility, or they improve service to interstate pipelines. Only 14 percent of additional capacity is on the interstate system itself. Export expansions to Mexico represent 22 percent of announced expansions.

Central Region

The Central Region is becoming increasingly important as a supply area. It is the only region other than the Southwest to produce more gas than it consumes. Its1994 natural gas production of about 2.4 trillion cubic feet was about 10 percent of the total gas consumed in the Nation and it provided 3 percent of the natural gas consumed elsewhere in the country. This region had the largest production increase in the Nation between 1990 and 1994—557 billion cubic feet, or 32 percent. Most of the increased production came from newly developed fields in Colorado and Utah, and some expanded development of existing fields in Kansas and Wyoming.

The region's cold winters, combined with the lowest residential prices for natural gas of any region, help make the residential sector the largest consumer of natural gas in this region. The region has the second coldest weather of the six regions (see Table 3, Chapter 3). Plentiful supplies from production and storage sites within the region and adequate capacity on local transmission and distribution lines ensure that peak demands of residential customers are met during the winter. 96

The region is the largest in area and the least populated. The total volume of gas consumed in the region in 1994, 1.7 billion cubic feet, was also the least of the six regions. Most of this gas is consumed for space heating, as it has the second highest percentage of households using natural gas.

While the Central Region consumes 73 percent of the natural gas it produces, and is the second largest gas producing region, its pipeline export capacity is a substantial 12.7 billion cubic feet per day (Table B1). Export pipeline capacity has increased 18 percent since 1990, primarily because of new pipeline capacity built to deliver the emerging Colorado/Utah supplies, mostly to California. Increased direct service to the Western Region was provided by the completion of the Kern River Pipeline system (700 million cubic feet per day) and indirectly through expansions on the Northwest Pipeline Company, El Paso Natural Gas Company, and Transwestern Gas Pipeline Company lines from the Southwest Region (Figure B2).

⁹⁶Less natural gas is consumed in the Central Region than in any of the other five regions.

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The Central Region is also a major transit region for Canadian supplies imported into the United States. The northern section of the region receives large amounts of gas from Canada at Monchy near the Saskatchewan and Montana borders. Monchy is the second largest of the nine entry points for natural gas imports from Canada. There are two main flow patterns for natural gas through the region. One is from Canada across the northern States and into the Midwest. The second is from Oklahoma and Arkansas through the southeast part of the region into Illinois. Intraregional flows are from supply sources in Wyoming and Kansas into Denver, Colorado; from Kansas into Kansas City and St. Louis, Missouri; and from Kansas north through Nebraska to Iowa.

Much of the capacity in the region is designed to traverse the region. The pipeline systems with the largest capacities in the region are Northern Natural Gas Company, Natural Gas Pipeline Company of America, Panhandle Eastern Pipe Line Company, ANR Pipeline Company, and Northern Border Pipeline Company. All of these lines bring gas through the region to either Iowa or Illinois. The flow from the Southwest toward Chicago, Illinois is over the oldest long-distance transmission lines in the Nation. The Natural Gas Pipeline Company of America's line from the Texas Panhandle to Chicago was laid in 1931, traversing Kansas and Iowa, while the Panhandle Eastern Pipe Line Company line from the Texas Panhandle to Illinois, also laid in 1931, traverses Missouri. Most of the major lines in Wyoming, Montana, and Colorado were built before 1932, and the lines that serve Kansas have been in place for 70 years.

The increase in capacity to the Midwest Region that occurred over the past several years came principally from expanded service on the Northern Border Pipeline system. Some minor increases in capacity also occurred on routes serving the Midwest Region out of Kansas. Existing capacity from the latter was capable of handling a 90 percent increase in flows from expanded production in the Hougoton Basin.

Although planned additions to capacity in the region between 1995 and 1997 amount to 3.0 billion cubic feet per day, 97 percent of this is capacity directly or indirectly exiting the region. Principal among the new pipelines planned for the region are the Altamont Pipeline (1996, 719 million cubic feet per day) and the Transcolorado Pipeline (1996, 300 million cubic feet per day). Major expansions include the Kern River Pipeline (452 million cubic feet per day), which is tied into the Altamont project, the Northern Border Pipeline Company (336 million cubic feet per day), Northern Natural Pipeline Company (106 million cubic feet per day) and Natural Gas Pipeline Company of America (900 million cubic feet per day).

Consuming Regions

Western Region

Population in the Western Region has increased rapidly. During the 1980's, Nevada and Arizona were the fastest growing States in the Nation, sustaining population increases of 51 and 35 percent, respectively. These rates are considerably higher than for other States, with only Florida growing faster. In addition, California, already heavily populated, grew by 26 percent during the same period.

Because the Western Region has limited indigenous natural gas reserves, its gas customers rely on the interstate pipeline network to bring supplies relatively long distances from major domestic and Canadian producing regions. Yet, geographic features and environmental regulations limit access to gas supplies. Environmentally sensitive terrain limits the pipeline corridors providing access to supplies in the East. Offshore leasing moratoria impede further development of resources in the Pacific.

About two-thirds of the capacity into the region is on pipeline systems that carry gas from the Rocky Mountains area and the Permian and San Juan Basins. These systems enter the region at the New Mexico-Arizona and Nevada-Utah State lines. The rest arrive on pipeline systems that access Canadian supplies at the British Columbia-Idaho and Washington State border crossings.

Only five interstate pipeline companies provided service into the region in 1994, the fewest serving any region (Figure B3). Capacity entering the region was also the lowest of all gas-importing regions, approximately 10 billion cubic feet per day (Table B1). A fifth interstate system, the Mojave Pipeline, is mainly a provider of transportation services (400 million cubic feet per day) from Arizona into California. It eventually merges with the Kern River Pipeline to serve customers in southern parts of the State.

The electric utility industry is a major user of natural gas. In three of the six Western Region States (Arizona, Nevada, and California), the electric utility industry accounts for 24 percent or more of total natural gas deliveries to consumers. Coincidently, Federal and State environmental regulations are encouraging more natural gas use, particularly in applications where petroleum products and coal dominate the market. In some parts of the region, regulations to limit atmospheric emissions may make natural gas the only fossil fuel that can be used for electric power and steam generation. The region is also the leader in demonstration projects for compressed natural gas vehicles.

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During the 1980's combined pipeline and storage capacity was not adequate to meet peak-period demand. In California, capacity-induced curtailments to interruptible customers during peak periods became a regular element of the natural gas market. These curtailments and the significant potential for further market expansion within the region resulted in intense competition for existing pipeline and storage capacity. In response to the situation, and with expectations of greater market growth, several new pipeline systems were built and several existing ones were expanded.

Capacity into the Western Region increased overall by more than 41 percent, or 2.9 billion cubic feet per day between 1991 and 1994. The majority of this increase occurred on routes transporting gas from Canada, where 47 percent more capacity was implemented. Pacific Gas Transmission Company and Northwest Pipeline Company accounted for all of these capacity additions. In spite of a general economic downturn in the region during the period, particularly in California, average capacity usage rates declined only slightly, by 2 percentage points, from 1990.

On a percentage basis, however, the largest growth in capacity, 219 percent, was on routes bringing supplies from States in the Central Region—Wyoming, Utah and Colorado. With the completion of the Kern River Pipeline Company line into California, capacity from the Central Region reached 3.5 billion cubic feet per day. Average usage rates on lines from the Central Region climbed from 54 percent in 1990 to 79 percent in 1994, principally from the almost full utilization of the Kern River Pipeline.

Added capacity from the Southwest Region, which also carries supplies from Colorado's coal-bed methane fields, amounted to over 1.0 billion cubic feet per day. Transwestern Pipeline Company and El Paso Natural Gas Company added the bulk of this new capacity. It, however, faced a soft market. Capacity serving California from the Southwest Region displayed the largest drop in usage within the interregional network. While the enhanced oil recovery (EOR) market supported and maintained high average utilization rates (79 percent) on the pipelines originating in Central Region, capacity utilization from the Southwest Region fell by 27 percent.

The level of pending capacity additions into the Western Region currently stands at only 0.5 billion cubic feet per day (through 1997) compared with 2.9 billion cubic feet per day completed between 1991 and 1994 (Table B1). One project accounts for a large portion of this proposed capacity expansion. The Kern River Pipeline increment based upon the Altamont pipeline project is scheduled to bring in Canadian supplies sometime in 1996. However, the Altamont itself has been postponed several times because of market conditions and delays in getting approval from the FERC.

Within the region itself, additional pipeline capacity is being developed to serve new markets. The Mojave Pipeline extension proposes to provide an additional 0.5 billion cubic feet per day to the north and north central area of the State, bringing supplies up from the south. The Tuscorora Pipeline would bring 0.1 billion cubic feet per day from Oregon (Canadian Gas) to the northeast part of the State in the Lake Tahoe area. And, although current usage rates are down, El Paso Natural Gas has planned several projects that will improve its local deliverability and increase efficiency by improving or altering some current flow patterns.

Northeast Region

The Northeast consumes more energy than any other region, although only 18 percent is in the form of natural gas. It is the most heavily and densely populated of the six regions. Because regional production is quite limited, natural gas customers in the Northeast Region must rely on an extended interstate pipeline system to bring supplies from producing areas outside the region. ⁹⁷ At one time, the Northeast was a major source of natural gas; in fact, manufactured and natural gas first became commercially available there over 175 years ago. A complex distribution network of pipelines has long been available. Similarly, the region has considerable access to underground storage since gas storage fields were first created and used in the area.

When local supplies were being depleted in the 1920's and 1930's, trunk pipelines were built to bring gas supplies from the Southwest Region to replace gas manufactured for residential use. However, the Northeast was the last region to be linked to the interstate pipeline network, with some areas only getting service as recently as 1966. Today the interstate pipeline companies serving the region have access to supplies from all major domestic gas-producing areas and Canada (Figure B4). In addition, liquefied natural gas is imported into Massachusetts from Algeria.

Transportation capacity into the northeastern market increased by more than 19 percent, or 1.9 billion cubic feet per day between 1990 and 1994 (Table B1). This made it the second most active regional natural gas market during the period. The vast majority of this new capacity provided greater access to Canadian supplies. Principal projects completed between 1991 and 1994 included the intrastate Empire Pipeline (affiliated with ANR Pipeline Company—0.5 billion cubic feet per day), the Iroquois Pipeline (0.6 billion cubic feet per

⁹⁷Regional production of natural gas, the equivalent of 14 percent of area consumption in 1990, fell to 10 percent in 1994.

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day), and Tennessee Gas Pipeline Company's expansion of its Niagara import facilities (by 0.4 billion cubic feet per day). Utilization of this new capacity in 1994 was above 95 percent except for the Empire line, which primarily serves the upper New York intrastate market.

The two main flows of gas into the region are from the Southeast into Virginia and West Virginia, and from the Midwest into West Virginia and Pennsylvania. Gas then moves within the region toward New York City and Boston. In 1994, the interstate pipeline system serving the region had the capacity to move 4.8 billion cubic feet per day from the Southeast and Midwest regions.

The region has large swings in gas demand because of weather. Overall, it is the third coldest of the regions, with some of the coldest States in the Nation at its northern limits. Withdrawals from storage are necessary to meet peak demand, as total capacity entering the region plus regional gas production are only about two-thirds of the region's peak demand. Gas demand is driven by the growing, highly populated urban corridor that stretches from Boston, Massachusetts to Richmond, Virginia.

Capacity expansions of 2.8 billion cubic feet per day, 15 percent above current levels, have been proposed by regional suppliers. This represents 32 percent of total proposed expansions nationwide. Of that, 0.4 billion cubic feet per day is additional capacity into the region. Long dependent on fuel oil, the Northeast has seen a steady increase in the availability of, and demand for, natural gas in recent years. The expected growth markets for the planned expansions will be the cogeneration facilities and industrial customers.

Southeast Region

The Southeast Region is the least developed market for natural gas in terms of per-capita consumption. In fact, natural gas accounts for only a small percentage of the total energy consumed in the region. Nevertheless, because of its location, numerous interstate natural gas pipeline companies operate through the region (Figure B5), carrying significant supplies through the region to the Northeast and the Midwest. During peak periods, the interstate pipeline system has the capacity to move up to 21.6 billion cubic feet into the region, principally from the Southwest Region (Table B1). This is the second-largest capacity level for any region. The region has an exit capacity level to the Northeast and Midwest of 14.8 billion cubic feet per day.

The region has temperate weather conditions and has historically had low winter demand for heating. Overall, the region has the mildest weather of any region, with Florida being one of the warmest States in the Nation.

The region has some of the fastest growing States. While it is still only the third most populous region, with 46 million people, population increased substantially during the 1980's. The population of Florida has increased by more than 33 percent since 1980; it is now the fourth most populous State. Georgia was the eighth fastest growing State during the 1980's.

Essentially all of the interstate natural gas pipeline capacity entering the region comes from the Southwest Region. More than 70 percent of this capacity is directed out of the region, with 9.8 billion cubic feet per day into the Midwest and 4.9 billion per day into the Northeast Region. The region is a net consumer of gas, with only Mississippi, Alabama, and Kentucky producing significant quantities of gas.

Capacity into the Southeast Region grew by about 7 percent between 1990 and 1994. Most capacity additions occurred within the region. The major projects completed were the Florida Gas Transmission expansion, the Mobile Bay Pipeline, and the Transcontinental Gas Pipeline southern expansion. Noteworthy were the additional pipeline expansions serving the northern North Carolina market. Several pipelines from the Northeast Region (Columbia Gas Transmission and Transcontinental Gas Pipeline Company) extended their systems into the Southeast Region market in 1993. On the other hand, several major projects announced in 1990 were subsequently withdrawn, postponed, or canceled outright. Among these were the Cornerstone Pipeline (0.6 billion cubic feet per day), the Tennessee Gas Pipeline West-to-East crossover (0.5 billion cubic feet per day), and the Texas Eastern Pipeline OK-AR pipeline (0.5 billion cubic feet per day).

Expected and actual growth in demand for natural gas as an electric utility plant fuel (and its use as other than a space heating fuel) has spurred new construction in the region. A prime example is in the State of Florida. Installed capacity on the Florida Gas Transmission (FGT) system, which supplies almost all the natural gas to the eastern and southern parts of State, increased by 15 percent, from 820 in 1990 to 943 million cubic feet per day at the end of 1994. Another 532 million cubic feet per day became operational in March 1995, yielding an 80-percent increase since 1990. The electric utility industry accounts for over 50 percent of total natural gas consumption in the State. Indeed, citing expected future growth in this sector, FGT has proposed to FERC to expand its service capability even further. Proposed additions to capacity into the region over the next several years amount to a substantial 915 million cubic feet per day, up 4 percent from 1994 levels, but below what has been added since 1990.

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Midwest Region

An intricate, long-distance natural gas transmission network has evolved over the past 70 years to serve the Midwestern market (Figure B6). Today 15 interstate pipeline companies have the capacity to move 24.3 billion cubic feet of gas into the region per day (Table B1). The total capacity of the interstate pipelines entering the region is larger than for any other region.

The current level of pipeline capacity into and within the Midwest was essentially reached in the late 1970's. Except for the completion of the Northern Border Pipeline (the eastern leg of the Alaska prebuilt system), which provided increased availability of gas supplies from Canadian sources by way of the Central Region, construction and system expansion during the past decade was minimal. However, pending and potential capacity expansion projects provide some indication that growth in natural gas consumption is expected over the next several years. Capacity additions into the Midwest Region between 1991 and 1994 were 1.5 billion cubic feet per day, an increase of 7 percent over 1990 levels. No new major pipelines were constructed in the region although a number of expansion projects were completed. Primary among these were additions to the Great Lakes Transmission System (a 41 percent increase in capacity), the Northern Border Pipeline (36 percent) and ANR Pipeline Company (18 percent in Michigan and Indiana).

The interstate pipeline system extending into the Midwest Region taps the major gas-producing areas of East Texas, Louisiana, and offshore Gulf of Mexico for about one-half of its supplies, and to southwest Kansas, Oklahoma, and north Texas for an additional one-third. Regional production, principally from Ohio and Michigan, provides a little more than 6 percent of gas consumption in the region. The remaining supply comes from Canada.

Several characteristics of the Midwestern market underlie its status as the Nation's second largest market for natural gas and help explain its extensive pipeline network. The region is weather-sensitive, with cold winters and moderate summers. Minnesota and Wisconsin are among the coldest States in the Nation, and the other four States in the region are colder than the national average. It also has a number of major population centers and is the second largest of the six regions in population. The large number of residential space-heating customers, combined with the cold winters, result in large residential requirements for natural gas. The geographic position between the Central and Northeastern United States has resulted in a significant portion of the region's pipeline system capabilities being reserved for deliveries beyond its borders. Eight major pipeline systems serving the region also serve customers in the Northeast Region or in eastern Canada. Customers in eastern Canada receive Canadian gas that was transported through the Midwest Region for delivery into Ontario.

The interstate pipeline systems operating in the area are primarily trunk pipeline operations, transporting large volumes of gas from distant supply sources to local distributors. They differ greatly in size, type of service market, and the importance of the Midwest market to their overall operations. While the two most northern States, Wisconsin and Minnesota, as well as portions of Michigan, are serviced by pipelines importing Canadian supplies, the southern portion of the region is serviced primarily by the major trunklines coming from the Southwest.

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